

## A COMMUNICATION SYSTEM TRANSMIT POWER CONTROL METHOD

### Abstract of the Disclosure

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A method for adjusting an OLT for power control, which is capable of closely tracking a low tFER. The OLT is adjusted based on frame quality indicator FQI and channel quality metrics. FQI and channel quality metrics are generated at the receiver of a base transceiver station after reception of a frame. If FQI equal to a logic zero was generated, the OLT is adjusted upwards using a first stepsize. If FQI equal to a logic one was generated for a certain amount of consecutive frames, the OLT is adjusted downwards using a second stepsize. The OLT is also fine-tuned during the intervals between the transitions caused by applying the first stepsize or second stepsize. The first and second stepsizes and the amount of consecutive frames of  $FQI = 1$  before OLT is adjusted downwards are determined adaptively according to time-varying channel conditions and received frame quality indicator.

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